

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2017/2018

DMA5018 – MULTIMEDIA APPLICATIONS

(For Diploma students only)

5 JUNE 2018
2:30 p.m. – 4:30 p.m.
(2 Hours)

INSTRUCTIONS TO STUDENT


1. This question paper consists of **8 pages**.
2. Answer **ALL** questions in **Section A** and **Section B** on the **Answer Booklet**.

SECTION A: 30 MULTIPLE CHOICE QUESTIONS (30 MARKS)

Instruction: Write your answers in the Answer Booklet.

1. Text that has words, sections, or thoughts are linked together with clickable spots is called _____.
- A. hotspot
 - B. hypertext
 - C. hyperlink
 - D. hypermedia

2. Specifying which font to be substitution is called _____.
- A. alising
 - B. anti-alising
 - C. rasterization
 - D. font mapping

3. 

Label X shown in typography above is known as:

- A. leading
 - B. baseline
 - C. point size
 - D. cap height
4. _____ fonts are used for headlines and bold statements. It is considered better for computer displays.
- A. Arial
 - B. Serif
 - C. Calibri
 - D. Sans-serif
5. The wider-than-tall orientation that is normal to monitors is called _____.
- A. landscape
 - B. portrait
 - C. canvas
 - D. screen
6. Which of the following is **FALSE** about symbols?
- A. Used to convey human emotions.
 - B. Used to convey meaningful messages.
 - C. Symbolic representations of objects and processes.
 - D. Concentrated text in the form of stand-alone graphic constructs.

Continued...

7. Bitmaps are an image format suited for creation of the following **EXCEPT**:
- A. Complex drawings.
 - B. Photo-realistic images.
 - C. Images that require fine detail.
 - D. Graphic artists designing for the print media.
8. Which of the following statement are **TRUE** about bitmap images?
- I. Use less memory space.
 - II. Not easily scalable and resizable.
 - III. Require a plug-in for web-based display.
 - IV. Download faster compare to vector images.
 - V. Can be converted to vector images using autotracing.
- A. II, V
 - B. III, IV
 - C. I, III, IV
 - D. All of the above
9. Which of the following is the **BEST** example of lossy formats for image file compression?
- A. GIF
 - B. PSD
 - C. PNG
 - D. JPEG
10. Authoring tool features as stated below refers to _____.

- *Layering capability.*
- *Image manipulating.*
- *Scalable dimensions and text.*
- *Edit and retouching bitmapped image.*

- A. painting tools
- B. drawing tools
- C. word processing tools
- D. 3-Dimensional modeling tools

Continued...

11. Vector-drawn images is suitable to be applied in which area?

- I. Computer-aided design
- II. 3-D animation programs
- III. Graphic artists designing for the print media
- IV. Applications requiring drawing of graphic shapes

- A. I, II
- B. III, IV
- C. I, II, IV
- D. All of the above

12. The 3-D application feature as stated below refers to _____.

A profile of the shape is rotated around a defined axis.

- A. lathing
- B. shaping
- C. modeling
- D. extrusion

13. Animation that moves objects in flat space but adds an illusion of depth through shadowing and forced perspective is animation in _____ space.

- A. 2D
- B. 2 ½ D
- C. 3D
- D. 4D

14. Which of the following is **FALSE** about animation?

- A. Defined as the act of making something come alive.
- B. An object moving across or into or out of the screen.
- C. It is concerned with the visual or aesthetic aspect of the project.
- D. A technique in which a series of progressively different graphics is used on each frame of movie film.

15. What is the extension of an Adobe Flash project that has been compiled for playback?

- A. .fla
- B. .svg
- C. .dcr
- D. .swf

Continued...

16. Some animation programs allow the animator to create a trail between two points and then animate an object along that trail. This type of animation is called _____.
- A. morphing
 - B. kinematics
 - C. cel animation
 - D. path animation
17. When sound is digitized, the frequency with which a section of sound is taken and stored is known as the _____.
- A. bit depth
 - B. resolution
 - C. sample size
 - D. sampling rate
18. Digital audio is known as _____ when the audio quality based on quality of your recording, and not the device the end user will play the audio.
- A. speaker
 - B. quantization
 - C. device dependent
 - D. device independent
19. Which of these statements regarding the MIDI audio format is **TRUE**?
- A. It is difficult to change instruments.
 - B. Spoken audio is difficult to include.
 - C. Sound tracks can be edited using waveform editors.
 - D. Files are generally larger than the same digital audio sound.
20. Which of the following sound editing operation **BEST** describes the statement below?

Edit and combine multiple tracks such as sound effects, voice-overs, music, etc; and merge the tracks and export in final mix to a single audio file.

- A. Multiple track
- B. Format conversion
- C. Splicing & Assembly
- D. Digital signal processing

Continued...

21. Which of the following multimedia elements places the highest demand on hardware performance?
- A. Audio
 - B. Video
 - C. Graphic
 - D. Animation
22. Computer displays draw the lines of an entire frame in a single pass; this technique is called _____.
- A. packing
 - B. overscan
 - C. streaming
 - D. progressive-scan
23. A video signal transmitted with all the signals mixed together and carried on a single cable is called _____.
- A. RGB video
 - B. composite video
 - C. component video
 - D. multiformat video
24. The video technique that allows you to choose a color or range of colors that become transparent, allowing the video image to be visible behind those colors in the overlying image, is known by all of the following **EXCEPT**:
- A. interlacing
 - B. blue screen
 - C. green screen
 - D. chroma key editing
25. There are three analog broadcast video standards are commonly in use around the world **EXCEPT**:
- A. Phase Alternate Line
 - B. High Definition Television
 - C. Sequential Color and Memory
 - D. National Television Standards Committee
26. The _____ and the _____ are the protocols for communication on the Internet.
- A. Hypertext Transfer Protocol; Internet Protocol
 - B. Transmission Control Protocol; Internet Protocol
 - C. Uniform Resource Locators; Hypertext Transfer Protocol
 - D. Hypertext Transfer Protocol; Transmission Control Protocol

Continued...

27. An IP address can be exchanged with a(n) _____.
A. MIME-type
B. usenet group
C. domain name
D. point-to-point protocol
28. The amount of data expressed in terms of bits per second is referred to as _____.
A. bps
B. speed
C. packets
D. bandwidth
29. Web pages are written in _____.
A. MIME
B. HTML
C. TCP/IP
D. JAVA
30. Which of the following services is provided by Internet?
I. FTP
II. Gopher
III. Usenet
IV. Telnet
V. SMTP
VI. MUD

A. I, II, IV, V
B. I, II, III, IV
C. III, IV, V, VI
D. All of the above

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SECTION B: 5 STRUCTURED QUESTIONS (70 MARKS)

Instruction: Write your answers in the Answer Booklet.

QUESTION 1 (15 MARKS)

- a) Explain **THREE (3)** types of character set and give an example for each of them. [9 marks]
- b) Explain the use of image editing programs in producing a multimedia project. [4 marks]
- c) List **TWO (2)** 3-D animation drawing and rendering tools. [2 marks]

QUESTION 2 (15 MARKS)

- a) Explain cel animation technique. [8 marks]
- b) Discuss the following terminology in animation:
- i) Kinematics [2 Marks]
 - ii) Inverse kinematics [2 Marks]
- c) Discuss and identify the difference between computer animation and the traditional way creating an animation. [3 marks]

QUESTION 3 (10 MARKS)

- a) Discuss digital audio. [5 marks]
- b) Calculate the audio file size in *Megabytes* of 2.5 minutes, 2 bytes, 44.1kHz mono music. [5 marks]

QUESTION 4 (15 MARKS)

- a) Explain codec. [3 marks]
- b) Calculate the video file size in gigabytes. [12 marks]

Duration	Frame Rate	Frame Size	Color Depth
78 minutes	30 fps	800 x 400	16

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QUESTION 5 (15 MARKS)

- a) Explain bottleneck. [1 mark]
- b) Discuss **FOUR (4)** ways to avoid bandwidth bottleneck. [8 marks]
- c) Explain how data are sent over the internet. [6 marks]

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